

**Effect of Ethanol Extract of Kecombrang (*Etlingera elatior*) Leaves to Lens and Erythrocyte Aldose Reductase Activity in White Rats (*Rattus norvegicus*) Wistar strain with Diabetes Mellitus**

This research was to prove the ethanol extract of kecombrang (*Etlingera elatior*) leaves could decrease lens and erythrocyte aldose reductase activity. True experimental research with randomized posttest only controls group design was performed. Thirty-five male white rats (*Rattus norvegicus*) Wistar strain were divided into five groups (each comprised seven rats). Four groups which injected by Streptozotocin (STZ) 60 mg/kgBW were K<sub>(+)</sub> (fed by Na-CMC 1% solution only), P<sub>1</sub> (fed by 100 mg/kgBW kecombrang leaves extract in Na-CMC 1% solution), P<sub>2</sub> (fed by 150 mg/kgBW kecombrang leaves extract in Na-CMC 1% solution), and P<sub>3</sub> (fed by 200 mg/kgBW kecombrang leaves extract in Na-CMC 1% solution). One group (K<sub>(-)</sub>) which not injected by Streptozotocin (STZ) was fed by Na-CMC 1% solution only. The mean activity of aldose reductase lens between groups (K<sub>(+)</sub>, K<sub>(-)</sub>, P<sub>1</sub>, P<sub>2</sub>, and P<sub>3</sub>) was found that there was no significant mean difference ( $p > 0.05$ ). Group which fed by 100 mg/kgBW, 150 mg/kgBW and 200 mg/kgBW kecombrang leaves extract had lower erythrocyte aldose reductase activity than group which was not fed by kecombrang leaves extract significantly ( $p < 0.05$ ). This research suggest that ethanol extract of kecombrang (*Etlingera elatior*) leaves decrease erythrocyte aldose reductase activity in white rats (*Rattus norvegicus*) Wistar strain with diabetes mellitus but ethanol extract of kecombrang (*Etlingera elatior*) leaves was not proven to affect lens aldose reductase activity in white rats (*Rattus norvegicus*) Wistar strain with diabetes mellitus.

**Keywords:** ethanol extract of *Etlingera elatior* leaves, lens aldose reductase activity, erythrocyte aldose reductase activity

**DAFTAR ISI**

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